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T H E

AMERICAN NATURALIST.

Vol. V. — APRIL, 1871. — No. 2.



THE SPRING FLOWERS OF COLORADO.

BY E. L. GREENE.



It is the tenth of April, and although the skies are clear, and the sun's rays warm enough for early June, yet the Colorado landscape shows no indications of spring. The mountain range which fills the western horizon, is still clad in all the dazzling white of wintry snows, and remains a picture of beauty and sublimity quite indescribable. The plains are brown and bare, as they were during most of the winter. Here and there, tufts of the evergreen Soap-weed (*Yucca angustifolia*), or matted masses of Prickly Pear, show their perennial verdure, and furnish the only conspicuous signs of plant life. No April showers have fallen to revive the grasses, and the herds of long-horned Texas cattle graze contentedly upon the sere remains of last year's growth. Yet at this early date, there are wild flowers, modest, and lovely April flowers, for the eye that knows where to look for them.

Extending all along the eastern base of the Rocky Mountains, is a series of high and picturesque table-lands, and below and among them, numerous grassy hills and knolls, all destitute of trees, often rocky, and apparently as barren as are the plains around. On sunny slopes, and in sheltered nooks among these foot-hills, we find our earliest flowers. By the first week in April, there appears on the very summits of these grassy knolls a real beauty, which, as it yet lacks an English name, may bear its Latin one, *Townsendia* (*T. sericea*). The plant belongs to the family

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of Compositæ, an order which has not the charm of furnishing many early flowers, but which displays its beauties in late summer or in autumn. Even our *Townsendia* forms its flower buds and its foliage in the fall. The plant is almost destitute of a stem, and the narrow silky leaves form a dense tuft two or three inches broad, just upon the surface of the ground. Nestling closely among the pretty leaves are five or six rather large daisy-like flowers. The rays are either white or rose-color, and the center of each head is yellow, as is commonly the case in the compound flowers. There grows with this another species of *Townsendia* (*T. Fendleri*), smaller and more delicate, with more numerous heads, but it flowers nearly a month later. These very pretty plants are well worthy of a place in our gardens, though they would perhaps be difficult to rear in any other than their native localities. By the fifteenth of the month *Viola Nuttallii* appears on the sunny hill-sides, a fine yellow violet, with its petals prettily painted outside with reddish brown. With it *Mertensia obtusifolia* hangs out its pendant clusters of light blue.

Passing beyond the foot-hills and entering some mountain gulch or cañon, we find the rocky slopes all yellow in some places with the flowers of the Rocky Mountain Barberry. Though a congener of the barberry of the Eastern States and Canada, it is a trailing evergreen shrub, and the flowers are succeeded by handsome blue berries like frost grapes. This is *Berberis aquifolium* of the authors. Higher up among the rocks are the large pale purple flowers of *Anemone patens*, one of the finest of Rocky Mountain plants, but it is quite common as far eastward as Wisconsin, on bleak, gravelly hills. With it in the mountains of Colorado, grows a modest little cruciferous plant with white flowers (*Thlaspi Fendleri*); also a peculiar species of crowfoot (*Ranunculus glaberrimus*), all of which are among the first flowers to appear.

By the twentieth of April, the zealous flower hunter will be amply rewarded for his toil, if he ventures to the top of some one of the table mountains. The task will indeed not be an easy one, for many tiresome stages must be made, up steep declivities, and among sharp and rugged rocks, and over what from the base may seem almost insurmountable, the high and almost unbroken wall of perpendicular rock, which invariably encircles the summits of these table mountains. High among these sublime formations, which stand pictured against the sky, like giant castle works, wild

birds of bolder wing construct their homes securely, and from many a dark recess the melancholy owl pours forth her plaintive wailings upon the ear of night. Yet these mighty barriers are not altogether impassable. Among the irregularities of their outline are places where little streams bordered with shrubs and bushes come singing down among the rocks, from the table land. Even broad and easy passage ways may be sought out by the eye before commencing the ascent.

These table lands, when reached, are usually found to present an uneven surface of bare rock, or, in places, of shallow soil. There are even extensive meadows on some of them with occasionally a pond of water. In sheltered situations opening toward the south where the spring sun first drove away the snow, there are already some real treasures for the botanist's portfolio. In every crevice and hollow, where there is a little soil, we find a very handsome cruciferous plant which has yet no name by which to be known, save the Latinized Greek one, *Physaria didymocarpa*. Its pretty rosettes of broad whitish leaves, which lay all winter close to the frosty rock, have now sent up a number of spreading stems with golden yellow flowers. A small variety of *Thermopsis fabacea*, with fragrant lupine-like blossoms, will be found where the soil is deeper, but the larger and more common form of this plant flowers a month later, on the plains below.

The most interesting tenant of these heights is the *Echinocactus Simpsonii*. As its name would indicate, it belongs to the cactus tribe. It is remarkable among the cactaceous plants of this latitude for its early flowering. Not less than a dozen species or varieties of these plants, grow upon the adjacent plains, but none of them are in flower before the first of June. This one may be found in perfection before the last of April. It is globose in form and very thickly armed with whitish spines, so that, when out of flower, the plants seem like mere balls of bristles scattered about among the rocks. The flowers are five or six in number, of a bright purple, forming a circle around the centre, or rather, apex of the plant. It is an object of very singular beauty, alone well worth the trouble and fatigue of an hour's climbing.

As the first of May draws nigh, the general aspect of the country becomes more springlike. The grasses are beginning to grow, and the number of flowers begins to increase so that to enumerate them would be tedious. However, we must not fail to notice a

very beautiful, low liliaceous plant with grassy foliage and crocus-like flowers, which now begins to whiten the hill-sides nearest the plains. Its name is *Calochortus venustus*, and it deserves its name, which, equally for the species and the genus, refers to its beauty.

PRAIRIE FIRES.

BY DR. C. A. WHITE.

EVERY dweller in the great interior region of North America, is more or less familiar with prairie fires, or rather, they have often at nightfall seen their lurid light in the distant horizon, or by day their huge volumes of smoke rising and blending with the clouds, and many are even familiar with the consuming march of the flames themselves. Strangers visiting these regions, between October and May, are often alarmed at the first sight of these illuminations, being impressed with the belief that they emanate from burning buildings.

Usually, these fires are harmless, but there is always danger that they will cause destruction of property, and even of life, and the settler in sparsely inhabited districts watches with anxiety until the almost inevitable annual scourge has swept all the uncultivated prairie in his neighborhood. The greater part of the combustible material which feeds these fires is grass, the remainder being the dried remains of those annual plants so well described by Mr. J. A. Allen, in the *NATURALIST* for December, 1870. These together cover the ground every season, for the fires of one year do not at all impair or prevent their abundant growth the next. Stringent laws are enacted in all the prairie states, against the setting of fires to the prairies, yet each year's growth of grass upon at least the larger ones, is somehow almost invariably burnt. The progress of the fire is usually slow, and is often arrested by a few furrows plowed around the field for that purpose, by small rills or even by a slightly beaten road. But when the wind is high upon the great prairies, the case is very different. Then nothing can withstand the fury of the fire, and it often runs an unchecked course of more than a hundred miles, sometimes leaping rivers of more than a